

U.S. Serial No. 09/712,625
Response to the Office action of July 2, 2004

This listing of claims will replace all prior versions, and listings, of claims in the application:

The Status of the Claims

1. (Currently Amended): A method of selecting a particular multi-switch port from a plurality of multi-switch ports for association with a current network identifier and a current polarity designator in a direct-to-home satellite receiver system, the method comprising the steps of:

receiving the current network identifier, the current polarity designator, and a satellite frequency, the satellite frequency being associated with the current network identifier and the current polarity designator;

tuning the direct-to-home satellite receiver system to the satellite frequency;

placing a first multi-switch port from the plurality of multi-switch ports into a selected state by generating a first control signal indicative of the first multi-switch port;

determining if a first predetermined marker pattern is acquired within a first predetermined time period while the first multi-switch port is in the selected state;

placing a second multi-switch port from the plurality of multi-switch ports into the selected state by generating a second control signal indicative of the second multi-switch port;

determining if a second predetermined marker pattern is acquired within a second predetermined time period while the second multi-switch port is in the selected state;

associating first data indicative of the second multi-switch port with second data indicative of the current network identifier and the current polarity designator; and

recording the first data and the second data in a memory device if the second predetermined marker pattern is acquired within the second predetermined time period.

2. (Original): A method as defined in claim 1, wherein the first predetermined marker pattern comprises the second predetermined marker pattern and the first predetermined time period comprises the second predetermined time period.

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3. (Currently Amended): A method as defined in claim 1, further comprising the steps of:

determining if the direct-to-home satellite receiver system comprises a stacking direct-to-home satellite receiver system; and

skipping a multi-switch port if the direct-to-home satellite receiver system does not comprise a stacking direct-to-home satellite receiver system.

4. (Currently Amended): A method as defined in claim 1, further comprising the steps of:

acquiring the second predetermined marker pattern; interpreting the second predetermined marker pattern to determine a received network identifier and a received polarity designator; comparing the received network identifier to the current network identifier; and

comparing the received polarity designator to the current polarity designator.

5. (Currently Amended): A method as defined in claim 1, wherein the step of receiving the current network identifier, the current polarity designator, and a satellite frequency comprises the step of receiving the current network identifier, the current polarity designator, and the satellite frequency via a satellite signal.

6. (Currently Amended): A method as defined in claim 1, wherein the step of receiving the current network identifier, the current polarity designator, and a satellite frequency comprises the step of receiving the current network identifier, the current polarity designator, and the satellite frequency via a telephone signal.

7. (Currently Amended): A method as defined in claim 1, wherein the step of receiving the current network identifier, the current polarity designator, and a satellite frequency comprises the step of receiving the current network identifier, the current polarity designator, and the satellite frequency from the memory device.

8. (Currently Amended): A method as defined in claim 1, wherein the step of receiving the current network identifier, the current polarity designator, and a satellite frequency comprises the step of receiving the current network identifier, the current polarity designator, and the satellite frequency from a removable memory device.

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9. (Currently Amended): A method as defined in claim 1, wherein the step of receiving the current network identifier, the current polarity designator, and a satellite frequency comprises the step of receiving a right-hand polarity designator.

10. (Currently Amended): A method as defined in claim 1, wherein the step of receiving the current network identifier, the current polarity designator, and a satellite frequency comprises the step of receiving a left-hand polarity designator.

11. (Currently Amended): A method as defined in claim 1, wherein the step of receiving the current network identifier, the current polarity designator, and a satellite frequency comprises the step of receiving a stacking frequency associated with a left hand polarity.

12. (Currently Amended): A method as defined in claim 1, wherein the step of receiving the current network identifier, the current polarity designator, and a satellite frequency comprises the step of receiving a plurality of network identifiers.

13. (Currently Amended): A method as defined in claim 1, wherein the step of receiving the current network identifier, the current polarity designator, and a satellite frequency comprises the step of receiving a mandatory network identifier.

14. (Original): A method of determining a control signal configuration associated with a direct-to-home satellite television receiver system, the receiver system including a receiver, a first communication port, a second communication port, and a memory device, the method comprising:

retrieving configuration data from the memory device;

retrieving a digital representation of a first frequency from the memory device;

tuning the receiver to the first frequency;

determining if the configuration data contains an association between the first communication port and the digital representation of the first frequency;

monitoring the first frequency on the first communication port for a predetermined digital marker if the configuration data does not contain an association between the first communication port and the digital representation of the first frequency;

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storing an association between the first communication port and the digital representation of the first frequency in the memory device if the predetermined marker is found using the first frequency on the first communication port within a predetermined period of time;

determining if the configuration data contains an association between the second communication port and the digital representation of the first frequency if the predetermined marker is not found using the first frequency on the first communication port within the predetermined period of time;

monitoring the first frequency on the second communication port for the predetermined digital marker if the configuration data does not contain an association between the second communication port and the digital representation of the first frequency; and

storing an association between the second communication port and the digital representation of the first frequency in the memory device if the predetermined marker is found using the first frequency on the second communication port within the predetermined period of time.

15. (Original): A method as defined in claim 14, further comprising the steps of:

retrieving a digital representation of a second frequency from the memory device;

tuning the receiver to the second frequency;

determining if the configuration data contains an association between the first communication port and the digital representation of the second frequency;

monitoring the second frequency on the first communication port for the predetermined digital marker if the configuration data does not contain an association between the first communication port and the digital representation of the first frequency and the configuration data does not contain an association between the first communication port and the digital representation of the second frequency;

storing an association between the first communication port and the digital representation of the second frequency in the memory

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device if the predetermined marker is found using the second frequency on the first communication port within a predetermined period of time;

determining if the configuration data contains an association between the second communication port and the digital representation of the second frequency if the predetermined marker is not found using the second frequency on the first communication port within the predetermined period of time;

monitoring the second frequency on the second communication port for the predetermined digital marker if the configuration data does not contain an association between the second communication port and the digital representation of the first frequency and the configuration data does not contain an association between the second communication port and the digital representation of the second frequency; and

storing an association between the second communication port and the digital representation of the second frequency in the memory device if the predetermined marker is found using the second frequency on the second communication port within the predetermined period of time.

16. (Currently Amended): A method as defined in claim 14, further comprising the step of excluding data from an electronic program guide that is associated with unavailable content.

17. (Currently Amended): A method as defined in claim 14, further comprising the step of storing a default association in the memory device if the predetermined marker is not found using the first frequency on the first communication port within the predetermined period of time.

18. (Currently Amended): A method as defined in claim 14, wherein the step of tuning the receiver to the first frequency comprises the step of selecting a port of a multi-switch by outputting a predefined voltage to the multi-switch.

19. (Currently Amended): A method as defined in claim 18, wherein the step of selecting a port of a multi-switch by outputting a predefined voltage to the multi-switch comprises the step of outputting +13V to the multi-switch.

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20. (Currently Amended): A method as defined in claim 18, wherein the step of selecting a port of a multi-switch by outputting a predefined voltage to the multi-switch comprises the step of outputting +18V to the multi-switch.

21. (Currently Amended): A method as defined in claim 18, wherein the step of tuning the receiver to the first frequency comprises the step of selecting the port of the multi-switch by outputting a predefined tone to the multi-switch.

22. (Currently Amended): A method as defined in claim 21, wherein the step of selecting the port of the multi-switch by outputting a predefined tone to the multi-switch comprises the step of outputting 22kHz to the multi-switch.

23. (Original): A method as defined in claim 22, wherein the 22 kHz output is modulated with a predefined command protocol.

24. (Currently Amended): A method as defined in claim 14, wherein the step of monitoring the first frequency on the first communication port for a predetermined digital marker comprises the step of monitoring service channel number 0x810.

25. (Original): An apparatus for determining a control switch configuration associated with a direct-to-home satellite television system comprising:

a receiver for receiving direct-to-home satellite television signals on a first frequency;
a first communication port selectively coupled to the receiver for receiving direct-to-home satellite television signals from a first signal source;

a second communication port selectively coupled to the receiver for receiving direct-to-home satellite television signals from a second signal source;

a memory device for storing a digital representation of a first frequency and configuration data; and

a controller operatively coupled to the receiver, the first communication port, the second communication port, and the memory device, the controller retrieving the digital representation of the first frequency and the configuration data from the memory device, the controller causing the receiver to tune to the first frequency, the controller determining if the configuration data contains an association between the first communication port and the

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digital representation of the first frequency, the controller monitoring the first frequency on the first communication port for a predetermined digital marker, the controller

causing the memory device to store an association between the first communication port and the digital representation of the first frequency if the predetermined digital marker is found using the first frequency on the first communication port within a predetermined period of time, the controller determining if the configuration data contains an association between the second communication port and the digital representation of the first frequency, the controller monitoring the first frequency on the second communication port for the predetermined digital marker, the controller causing the memory device to store an association between the second communication port and the digital representation of the first frequency if the predetermined digital marker is found using the first frequency on the second communication port within a predetermined period of time.

26. (Original): An apparatus as defined in claim 25, wherein the controller retrieves a digital representation of a second frequency from the memory device, the controller causes the receiver to tune to the second frequency, the controller determines if the configuration data contains an association between the first communication port and the digital representation of the second frequency, the controller monitors the second frequency on the first communication port for the predetermined digital marker, the controller causes the memory device to store an

association between the first communication port and the digital representation of the second frequency if the predetermined digital marker is found using the second frequency on the first communication port within a predetermined period of time.

27. (Original): An apparatus as defined in claim 25, wherein the controller excludes data from an electronic program guide that is associated with unavailable content.

28. (Currently Amended): A method of transmitting an encoded direct-to-home satellite signal to enable automatic determination of satellite signal availability, the method comprising the steps of:

providing a predefined marker pattern, the predefined marker pattern including a network identifier and a frequency identifier; and

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transmitting the marker pattern from a satellite on a plurality of frequencies associated with a plurality of satellites~~the satellite~~.

29. (Currently Amended): A method as defined in claim 28 wherein ~~the step of~~ providing a predefined marker pattern comprises ~~the step of~~ including a polarity type identifier.

30. (Currently Amended): A method as defined in claim 28, wherein ~~the step of~~ transmitting the marker pattern on a plurality of frequencies ~~associated with a plurality of satellites~~ comprises ~~the step of~~ transmitting the marker pattern on all available frequencies and satellites.